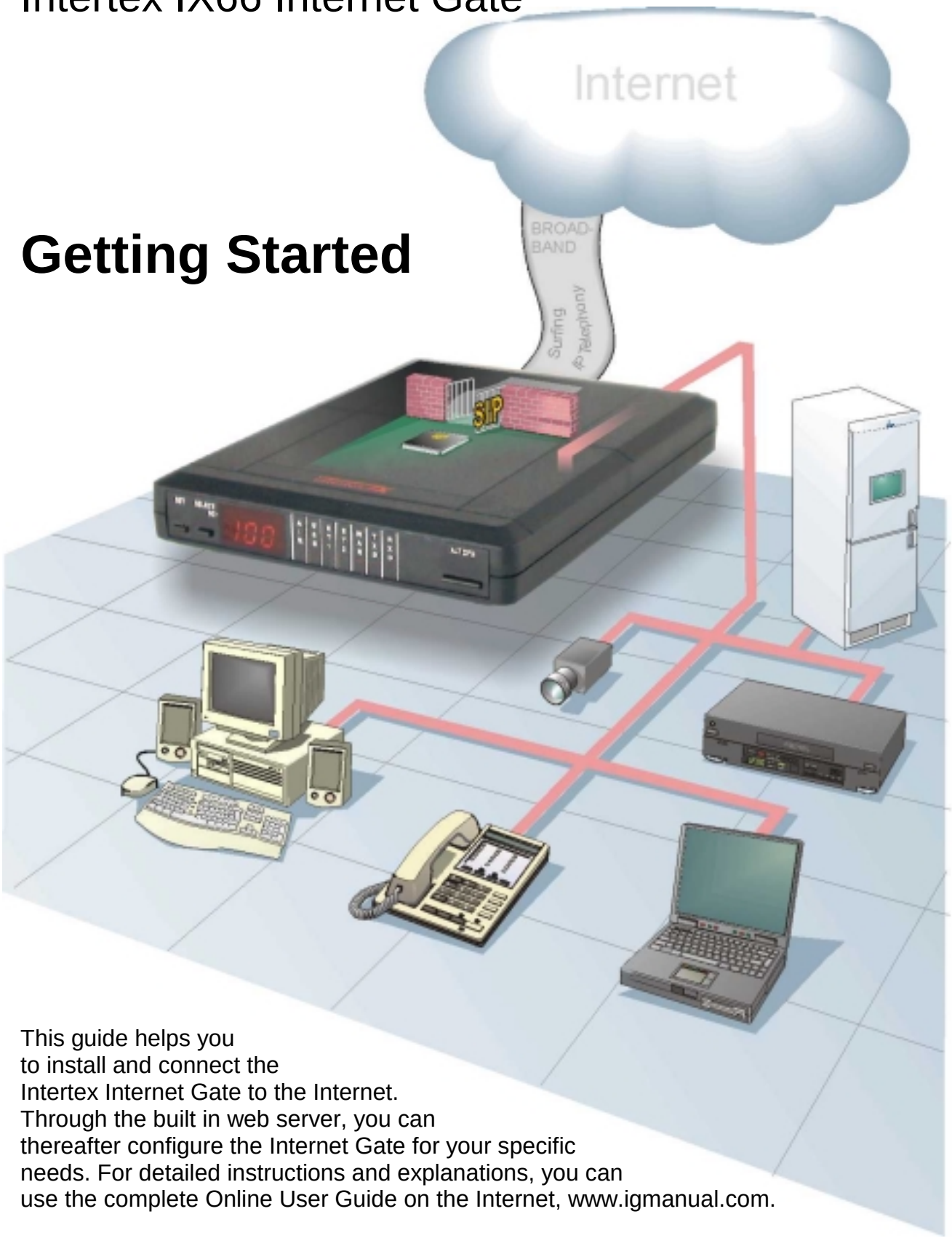
r F1.00

Intertex IX66 Internet Gate



Getting Started

This guide helps you
to install and connect the
Intertex Internet Gate to the Internet.
Through the built in web server, you can
thereafter configure the Internet Gate for your specific
needs. For detailed instructions and explanations, you can
use the complete Online User Guide on the Internet, www.igmanual.com.

interteX

Quick Start

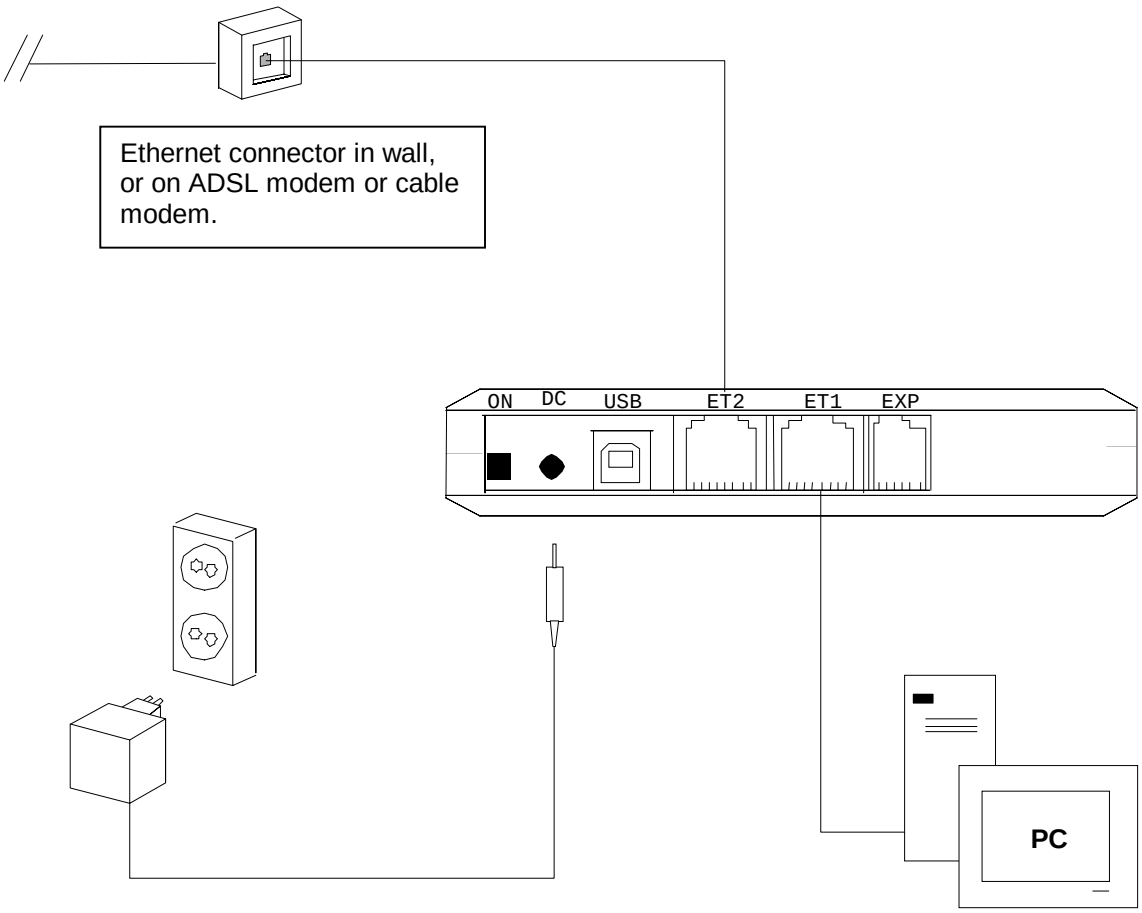
In most cases, the A, B, C steps on this page will get your Internet Gate up and running. If you run into problems you find the solution to the most common problems in this guide.

A

Hook up the Cables!

NOTE! It is important that your PC is switched off now!

- Use one of the included Ethernet cables to connect the port named **ET1** on the Internet Gate to the Ethernet port on your PC.
- Use the other Ethernet cable to connect port **ET2** of the Internet Gate to your broadband or WAN connection.
  (The WAN connection is an RJ45 connector either directly in your wall, or on the back side of the equipment (eg an ADSL-modem) delivering your broadband connection.)
- Connect the power adapter and push the **ON** switch.



For information about how to connect a LAN, please see page 7!

B

Surf into your Internet Gate!

- Check that you have connection with the Internet (indicated by WAN LED is lit)
- Turn then on your PC and start your web browser (e g Netscape or Internet Explorer)
- Surf into your Internet Gate by typing its IP address into the address field: **192.168.0.1**

- You may now log in and use the setting pages if you would like to (see more on page 12).

I don't see the Internet Gate's built in page! Why?

1. *Do you have an Ethernet card installed in your PC, and is it properly configured? See page 8!*
2. *Did you connect all the cables properly? LEDs ET1 and ET2 should be lit on your IX66 Internet Gate!*
3. *Reboot your PC and try again!*
4. *Is your PC and web browser properly configured? See page 8!*
5. *Do you already have a DHCP server on your LAN? See page 9!*
6. *Do you have static IP addresses on your LAN? See page 10!*

C

Check the Internet Connection

Now try to surf to an Internet site. You can for example surf to www.intertex.se

Do you see the requested web page?

Then you have made it! You have installed your IX66 Internet Gate! Congratulations!

I don't see the web page! Why?

1. *Reboot your PC, allowing it to get fresh configuration data from your IX66 Internet Gate, and try again!*
2. *Reboot your IX66 Internet Gate, and try again!*
3. *Is your firewall correctly configured? Press* **ALT CFG** *on your IX66 Internet Gate repeatedly, until "Hi" is shown in the display.*
4. *Is your web browser properly configured? See page 8!*
5. *Is your Internet Gate properly configured? See page 12!*
6. *Do you have to log in to WAN? See page 11!*
7. *Check your Internet connection with the built-in diagnostic test tool! See page 7!*

Note! Now you are finished, but take a moment to see the online user manual!

Now when your Internet Gate is connected to the Internet you should refer to the complete and up to date online user manual, available on the Internet.

To access the online user manual, click **Online User Manual** on the first built-in page in your Internet gate. See page 14, Using the Online User Manual for more information.

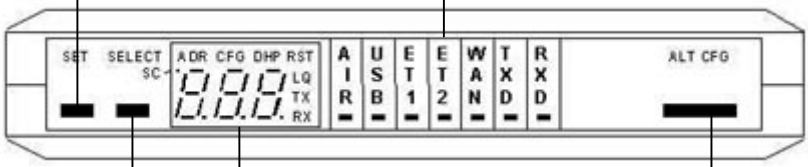
You may also access the online user manual from any PC with Internet access.
Just surf to **www.igmanual.com** and select your model!

Overview - Front Panel

Interface indicators:
On: Interface is connected.
Off: Interface is not used.
Flashing: Data is sent or received.

AIR – Wireless (Bluetooth or 802.11) (option)
USB – Universal Serial Bus (option)
ET1 – Ethernet 1 (PC or LAN)
ET2 – Ethernet 2 (WAN - Internet)
WAN – Internet connection.
TXD – Data is sent to the Internet.
RXD – Data is received from Internet.

SET
Press to see version number. Press and hold for 3 seconds to enter set-up mode.



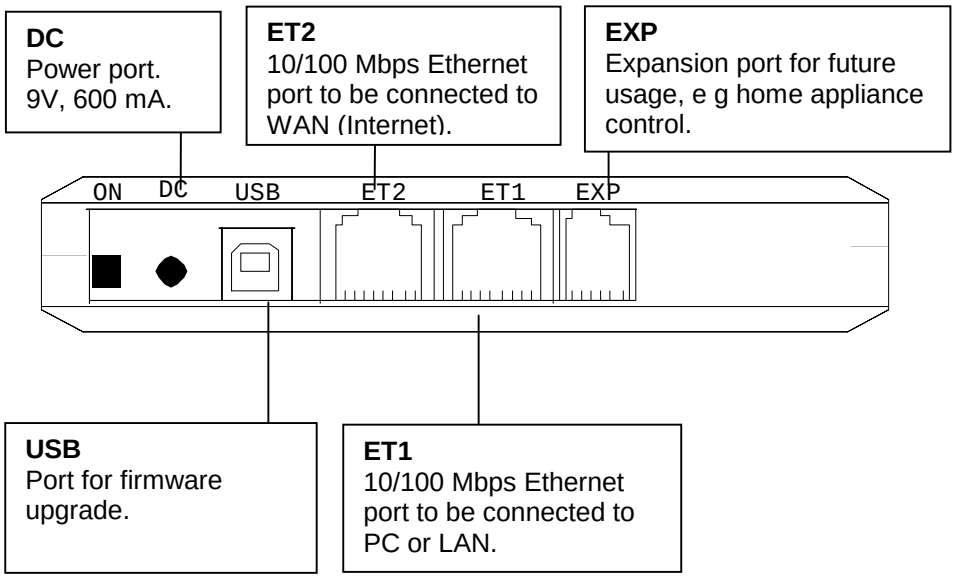
SELECT
Press to see Ethernet link speeds of ET1 and ET2. Press and hold for 2 seconds to cancel any set-up.

ALT CFG
Press to select firewall security profile.

AD Show LAN IP address of IX66 Internet Gate
CFG Configure LAN IP address of IX66 Internet Gate
DHP Turn LAN DHCP server of IX66 Internet Gate on/off
RST Reset all configuration to factory defaults
LQ Diagnostic test
TX,RX Both lit: full duplex; Flashing: half duplex

Note: on some simpler models of IX66 Internet Gate, some buttons and lamps may be missing.

Overview - Back Panel



Note: on some simpler models of IX66 Internet Gate, some connectors may be missing.

Package Details

The following items should be included in your box:

- Getting Started guide (this document)
- IX66 Internet Gate
- Power adapter
- 2 × Ethernet-cable (RJ45/RJ45, straight through)

If any of the items above are damaged or missing, please contact your dealer.

Note!
If you use your own Ethernet cables, make sure they are wired correctly: ▪ A straight-through cable must be used to connect Internet Gate to a PC. ▪ Most ethernet hubs require a crossover cable to connect to Internet Gate

Requirements

In order to set up and use your Internet Gate you need:

- A PC or a local area network (LAN) with PCs using the TCP/IP protocol.
- A web browser such as Microsoft Internet Explorer or Netscape Navigator, version 4 or later, installed on the PC.
- One RJ-45 Broadband Internet Connection, from wall connector or ADSL or cable modem.

Getting Help

There are several ways to get information about the Internet Gate:

- **Getting Started Guide** – This Getting Started guide helps you install, configure and start using the Internet Gate.
- **Built in Help** – All configuration pages on the built in web server have help texts that describe the different parameters.
- **Online User Manual** – In the online manual you find information that are always up to date and tailored for your specific system configuration. You access it via the link on the configuration pages of the Internet Gate or directly at www.igmanual.com.
- **Support** – If you experience problems when installing or using the Internet Gate that cannot be solved by the help indicated above, your retailer will assist you.

Detailed instructions

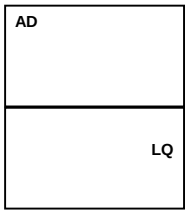
Have you problems getting your IX66 Internet Gate to work?
Read the detailed instructions on the following pages for help!

Connecting a LAN

If you have a Local Area Network (LAN) with several computers connected, you can connect the network hub to your IX66 Internet Gate, and allow all computers to share the Internet connection. Usually you need a crossover Ethernet cable to connect the hub to port ET1 of your IX66 Internet Gate. But if your hub have a port marked “UPLINK”, you should use a straight ethernet cable.
If your network uses dynamic IP-addressing (recommended), then your IX66 Internet Gate’s own built-in DHCP server will provide IP addresses to all your network PC-s. Please turn off any other DHCP servers on your LAN. Read more on page 9.
Is your network using static IP addresses? Read how to configure on page 10!

Diagnostic test

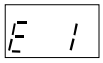
If you cannot access the Internet, your IX66 Internet Gate can attempt to localise the problem. Start the diagnostic test like this:



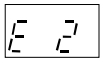
1. Press and keep **SET** pressed 3 seconds to enter setup-mode
2. Press **SELECT** 4 times until “LQ” is lit
3. Press **SET**

It takes a couple of seconds to perform the test. Any errors discovered are shown in the display.

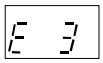
”E 1” to ”E 9” indicate error in your extern Internet connection:



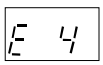
No WAN Ethernet link. Check cable in port ET2. Contact your broadband-supplier if error remains.



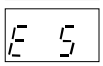
No WAN DHCP server found. Check configuration according to page 12. Reboot your IX66 Internet Gate. Contact your Internet Service Provider (ISP) if error remains.



No Gateway found. Check configuration according to page 12. Reboot your IX66 Internet Gate. Contact your Internet Service Provider (ISP) if error remains.

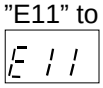


No DNS server found. Check configuration according to page 12. Reboot your IX66 Internet Gate. Contact your Internet Service Provider (ISP) if error remains.

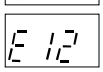


No Internet connection. You do have connection to your ISP, but they have no Internet connection for the moment. Contact your Internet Service Provider (ISP) if error remains.

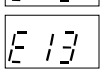
”E11” to ”E19” indicate error in your local network:



No Ethernet link. Check cable in port ET2.



No DHCP addresses requested. The DHCP server of IX66 Internet Gate is on, but no PC-s on LAN have requested any addresses. This *might* be OK, but check your settings, see page 8.



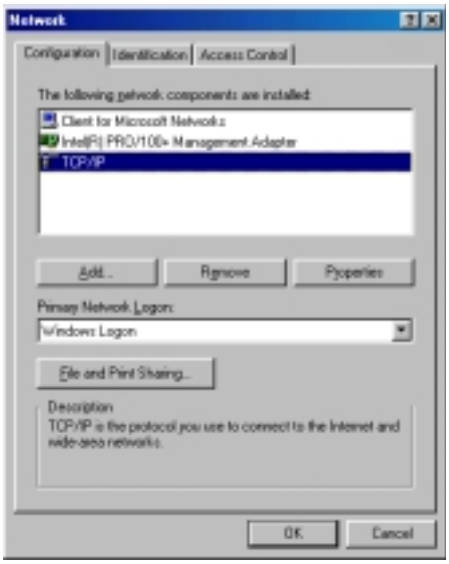
No Ethernet packets at all received.
This *might* be OK, but check your settings, see pages 8 and 12.

Note: the diagnostic test can find multiple errors. Press **SELECT** to flip through all error messages.
If no error messages are shown, then your Internet connection is OK. Any errors are probably due to your PC’s settings. Please see page 8 for more information!

Check your PC's settings!

The IX66 Internet Gate is delivered with factory defaults that fit most users. If your PC have the default network and web settings then everything should work at once. If not, please check your PC's settings:

(The steps described here are for Windows 98. Other operating systems have similar menues, though accessing them might be done differently.)



- Rightclick on the "**Network**" icon on your desktop, and select "**Properties**".

I have no "Network" icon on my desktop! Why?
You must have an Ethernet card installed on your PC. Install an Ethernet card according to the manufacturer's instructions.

- Double click on "**TCP/IP**" for your network card on the list that appears.

There is no "TCP/IP" in the list! Why?
It is not installed. Select "Add...", "Protocol", "Microsoft", "TCP/IP".

- There are two different ways of addressing computers in a local area network (LAN):
  a) *either* dynamic addressing, there a DHCP server provides IP-addresses to all computers,
  b) *or* static addressing, there all computers have been pre-configured with their own addresses

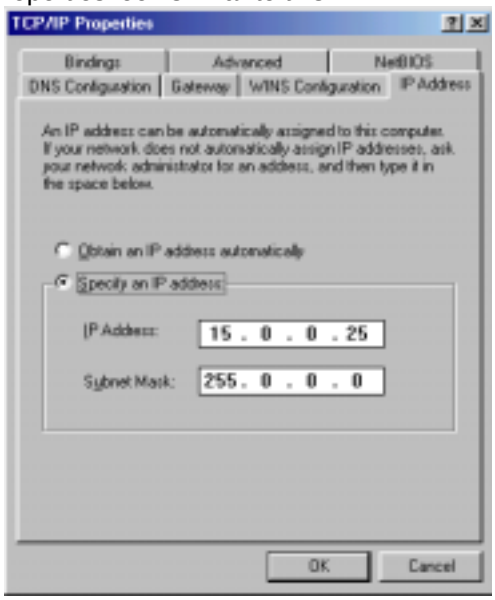
  Check which way of addressing your LAN is using by checking the settings of one of the PC-s:

a) If dynamic IP addressing is used, your properties look like this:

TCP/IP Properties
Bindings
Advanced
NetBIOS
DNS Configuration
Gateway
WINS Configuration
IP Address
An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.
Obtain an IP address automatically
Specify an IP address:
IP Address:
Subnet Mask:
OK
Cancel

In that case, you do not need to do anything. The built-in DHCP server of your IX66 Internet Gate will provide the correct IP addresses.
You should check your other settings though, according to pages 9, 11 and 12.

b) If static IP addresses are used, your properties look similar to this:


TCP/IP Properties
Bindings
Advanced
NetBIOS
DNS Configuration
Gateway
WINS Configuration
IP Address
An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.
Obtain an IP address automatically
Specify an IP address:
IP Address:
15 . 0 . 0 . 25
Subnet Mask:
255 . 0 . 0 . 0
OK
Cancel

In that case, you have two alternatives:

Alternative 1: change the settings of your Internet Gate and your PC-s, to fit your LAN. See page 10 for more information!

Alternative 2: restore all PC-s on your LAN to dynamic IP addressing
See page 9 for more information!

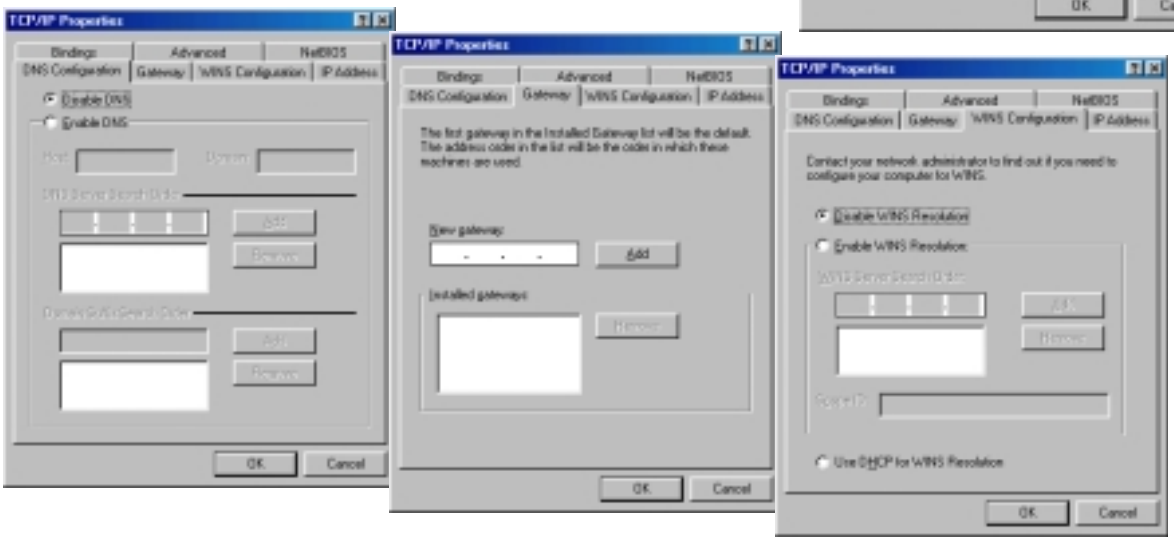
To use IX66 Internet Gate with dynamic IP-addressing on LAN

The IX66 Internet Gate is delivered configured for dynamic IP-addressing on LAN, there IX66 Internet Gate acts as a DHCP server, and provides IP addresses. All PC-s on your LAN must be configured like this:

NOTE: The steps described here must be performed on all PC-s of the LAN. *(The steps described here are for Windows 98. Other operating systems have similar menues, though accessing them might be done differently.)*

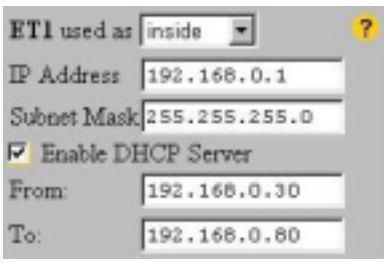
TCP/IP Properties
Bindings
Advanced
NetBIOS
DNS Configuration
Gateway
WINS Configuration
IP Address
An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.
Obtain an IP address automatically
Specify an IP address:
OK
Cancel

1. Rightclick on the "**Network**" icon on your desktop, and select "**Properties**".
2. Click on "**TCP/IP**" for your network card on the list that appears.
3. Click on "**Properties**" to see TCP/IP configuration:
4. Check "**Obtain an IP address automatically**".
   The built-in DHCP-server in your IX66 Internet Gate will provide dynamic IP addresses to all PC-s on your LAN.
5. Check your DNS, Gateway and WINS settings: All fields should be empty, and DNS and WINS should be disabled:



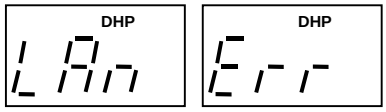
6. Click on "**OK**". Reboot the PC.

7. You may check that the built-in DHCP server of your IX66 Internet Gate is enabled, by checking the settings of ET1 in the built-in Network Settings page (see picture on page 12). You can see the most common settings here to the right: These should suit most users.



Other DHCP servers on your LAN? Turn them off!

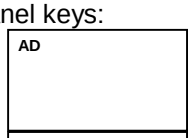
If your IX66 Internet Gate shows "DHP LAN Err" on its display, it indicates that there is already a DHCP server on your LAN, that the built-in DHCP server in your IX66 Internet Gate collides with:



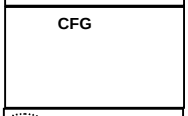
You should turn all other DHCP servers on your LAN off.
(Alternatively, you can turn off the built-in DHCP server in your IX66 Internet Gate, and set the IX66 Internet Gate as default gateway in **all** your PCs' settings.)

To use IX66 Internet Gate with static IP-addressing on LAN

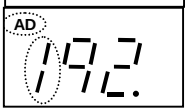
If you want your IX66 Internet Gate to be part of an existing network that uses static IP addresses you can change the IP address of your Internet Gate's LAN port (ET1) with the front panel keys:



1. Press and hold **SET** pressed for 3 seconds, to enter setup mode



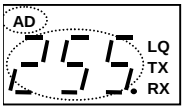
2. Press **SELECT** once, so CFG is lit



3. Press **SET**. The first 3 digits of the IP address are shown and the first digit flashes
4. Press **ALT CFG** repeatedly, until the correct digit is displayed

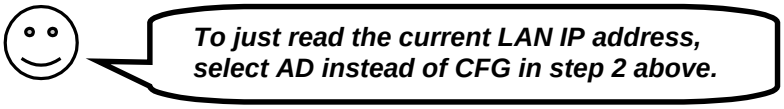
5. Press **SELECT**: the next digit flashes, and can be changed using **ALT CFG**

6. Use **SELECT** to step through all digits of the IP address.
   Use **SET** to step back to previous digit if you have made any error.
   Use **ALT CFG** to change the value of the flashing digit.
   You can cancel the IP address set-up, without saving any changes, by pressing the **SELECT** key and holding it pressed for 2 seconds
7. After stepping through all digits of the IP address, the subnet mask appears and can be modified. Each subnet mask number can only be set to values 255, 254, 252, 248, 240, 224, 192, 128, or 0



8. Press **ALT CFG** repeatedly, until the correct value is displayed.
   Press **SELECT** to step to the next subnet mask number.

9. The IP address and mask is stored after all digits have been set.



If the display displays "no" after setting an IP address, it means that there is already someone using that IP address on the LAN. Two units can not share the same IP address on the same LAN. You must select another IP address for your IX66 Internet gate. Redo the settings from step 1 again.

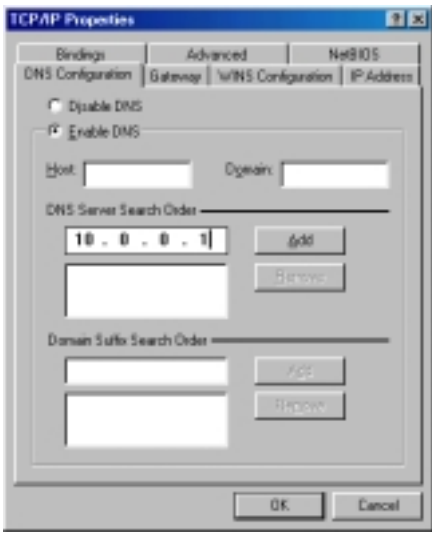
You can also change the LAN IP address of your IX66 Internet Gate by changing the settings for ET1 in the built-in Network Settings page (see picture on page 12). Enter the desired IP address and Network mask, and de-select DHCP. ET1 shall be used as "inside".

NOTE: The steps described here must be performed on all PC-s of the LAN. *(The steps described here are for Windows 98. Other operating systems have similar menues, though accessing them might be done differently.)*

1. Rightclick on the "**Network**" icon on your desktop, and select "**Properties**".
2. Click on "**TCP/IP**" for your network card on the list that appears.
3. Click on "**Properties**", select "**Gateway**".
4. Enter the IP-address of your IX66 Internet Gate (same value as set at steps 3-6 above), and click "**Add**".

5. If you have got an IP-address to a DNS server from your Internet Service Provider (ISP):
   - select ”**DNS configuration”**,
   - select ”**Activate DNS**”,
   - enter the IP address of the DNS server,
   - click on ”**Add**”.

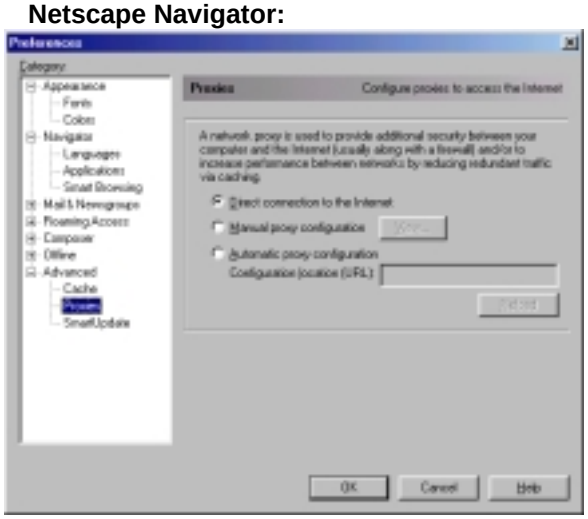
6. Click on ”**OK**”.



Check the proxy settings of your web browser

If your web browser is configured to use a proxy server, you might have problems reaching the built-in pages of your IX66 Internet Gate. In that case, turn off usage of the proxy server.

Netscape Navigator:



select Edit, Properties, Advanced, Proxies: ”Direct connection to the Internet” shall be selected.

Internet Explorer:

select Tools, Options..., Connection, LAN-settings: the checkbox ”Use a proxy-server” must *not* be selected.

Log in to WAN

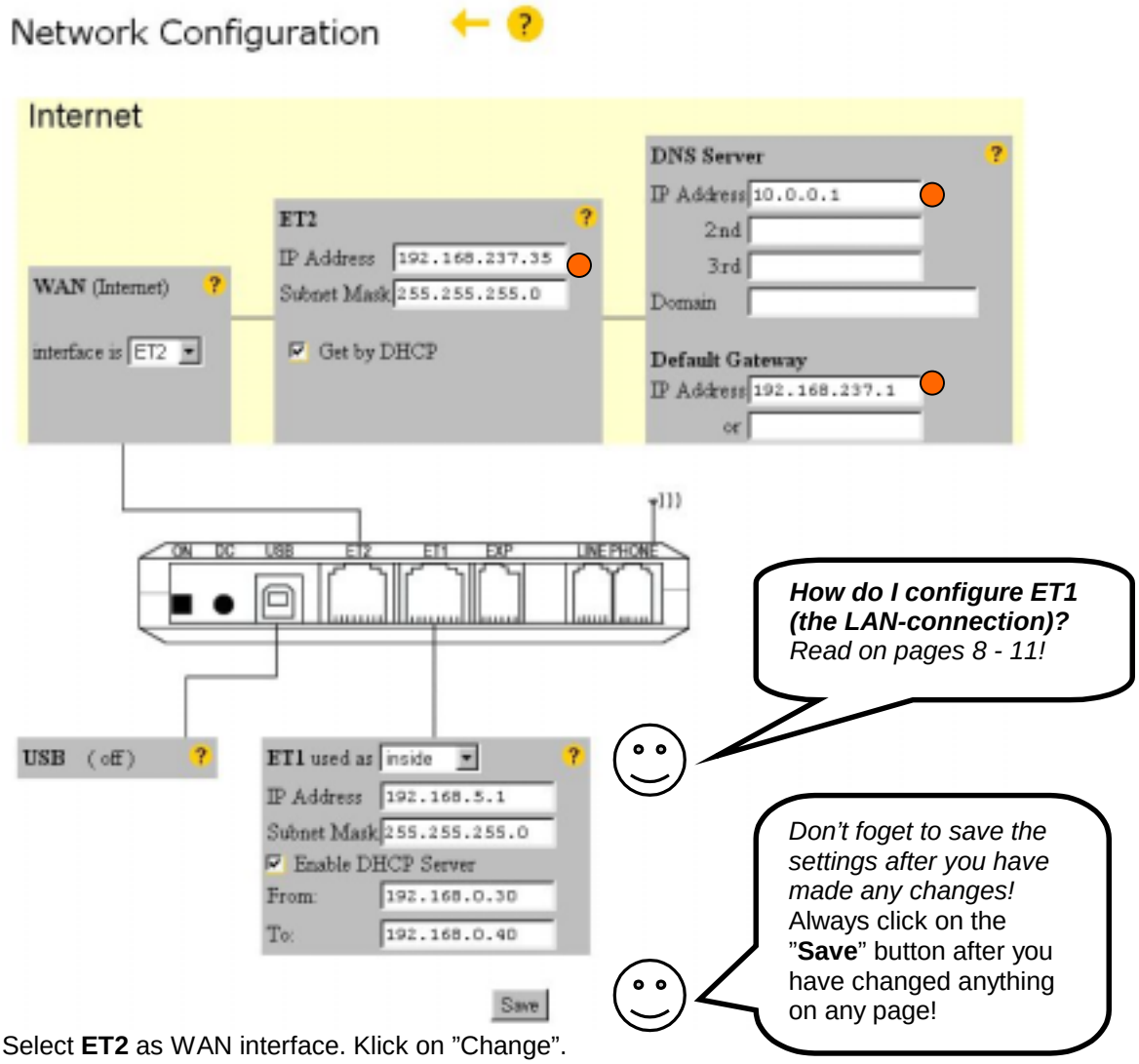
Some broadband providers require that you log in into their network before you are allowed to use their Internet connection. This may be done using a web page, special program, or some other way. Please read the documentation you received with your broadband access.

Configure your IX66 Internet Gate!

IX66 Internet Gate is delivered with factory settings that suit most users. In some situations however, you need to change your IX66 Internet Gate's configurations.

To access the built-in pages inside your IX66 Internet Gate, do the following:

1. Open a web browser, such as Internet Explorer or Netscape Navigator, on your PC.
2. Write the IP address of your IX66 Internet Gate, **192.168.0.1**, in the address field of the browser. The first built-in page should appear.
3. Klick on **Log in**.
4. Enter **User name** and **Password**.
   (At delivery is User name=**admin**, Password=**admin**. You should change them at once!)
5. Select **Network** in the main menu that appears.

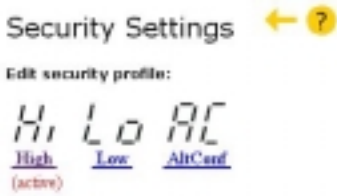


6. Select **ET2** as WAN interface. Klick on "Change".
7. Enter your Internet settings:
   a. If your Internet Service Provider (ISP) uses dynamic IP addressing, check "**Get by DHCP**". Then the fields marked in the above picture will be filled in automatically, the next time you turn on your IX66 Internet Gate.
   b. If your Internet Service Provider (ISP) have given you your own static IP address, enter it. Fill also in the fields DNS server, Domain name and Gateway.
8. Klick on "**Save**". Reboot first your IX66 Internet Gate, then your PC.

Configuring security levels

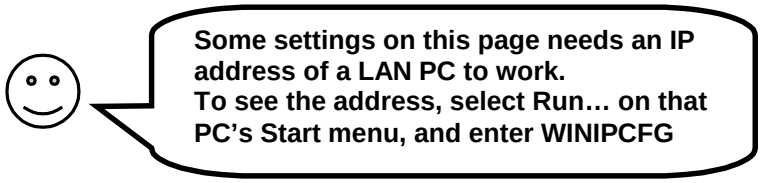
The following security levels are set in IX66 Internet Gateway at delivery:

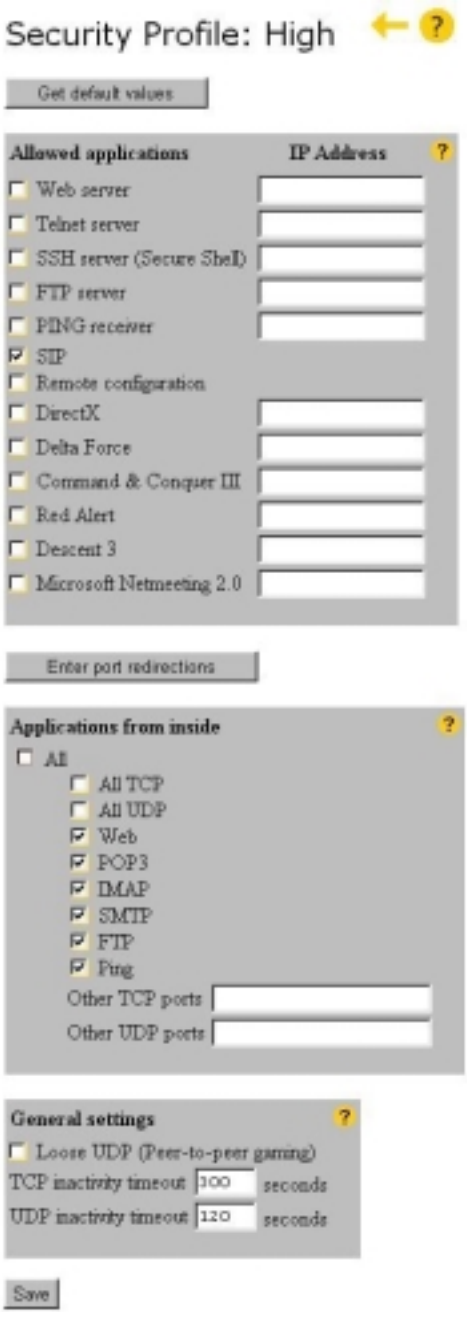
- **Hi**: Allow only web and e-mail traffic
- **Lo**: Allow all outgoing, and all proper incoming traffic
- **AC**: Same as Hi
- **blo**: Blocked, no traffic allowed



You can switch between the different security levels på pressing the **ALT CFG** button on the front panel of the IX66 Internet Gate, or by changing the setting on the main menu page of the built-in web interface.

You can edit the firewall configuration by selecting **Security** below **Settings** on the main menu page. Then choose configuration **AC** (AltConf = Alternative Configuration) to set your own security level and adjust it according to the games and applications you use.


Some settings on this page needs an IP address of a LAN PC to work.
To see the address, select Run… on that PC's Start menu, and enter WINIPCFG



If you have a web-, Telnet- or FTP-server on your LAN, that should be reachable from outside, enter its LAN IP address here.

If you want to allow other computers on the internet to access your LAN, select here what protocols that should be allowed through the firewall. (For example, check **Ping** if you want that incoming ping request should be allowed through. Enter the IP address of the LAN computer that the ping shall be forwarded to.)

If you are playing multiplayer games with other gamers over the Internet, enable such communication here. Check the game you want to play, and enter the IP address of the LAN PC you want to play from. See also "Generic Settings" below.
Hint: if your game is not in the list, try to allow "Direct X" and "Loose UDP". These protocols are used by many games.

Very advanced users can enter here and change port redirections manually.

If you want to allow the computers on your LAN to reach the Internet, select here what protocols should be allowed through. (For example, check **Ping** if you want that your computers should be able to ping to other computers on the Internet.)
Note: the selection "**All**" is not the same as marking all check-boxes in the list! "All" allows *all* outgoing data traffic, but if you mark all checkboxes will only the listed *known* protocols will be allowed out.
Very advanced users can open outgoing ports here manually.

Many games use the protocol "loose UDP" to communicate over the Internet. Check this box if your want to play such games.

Don't forget to click "**Save**" after your changes!
Don't forget to change security level to "AC" to activate your settings!

Using the Online User Manual

Once your Internet connection is up and running, you can easily access the online user manual for complete and up to date information about your Internet Gate.

1. Surf to the built-in web page of your Internet Gate
2. Click **Online User Manual**.

Note!
You can also read the Online User Manual from any computer with Internet access, at **www.igmanual.com**

Technical specification

System support	Independent of operating systems.
Configuration	Built-in web server
Protocol	IP, TCP, UDP, DHCP, HTTP, SIP
Measurements	180x130x25 mm
Weight	0,3 kg
Ports	EXP: Expansion port for future usage. ET1: 1 x 10/100 Base-T (RJ 45), IEEE 802.3 and 802.3u compatible ET2: 1 x 10/100 Base-T (RJ 45), IEEE 802.3 and 802.3u compatible USB: USB specification 1.0 and 1.1
Power supply	9V DC, 600 mA
Firewall	Generic rule-based packet-filtering, Stateful inspection, Port redirection, NAT+PAT
Smart card reader *(option)*	ISO 7816-1/2/3/4, Asynchronous Cards (T=0, T=1)
SIP-support	IETF protocol for sessions over Internet (e.g. IP Telephony), RFC2543
SIP-proxy	Firewall awareness (controls the firewall), Parallel Forking, Session Timer
SIP-registrar	SIP-clients are automatically registered, so that the proxy can forward calls and media streams to the correct recepient

DECLARATION OF CONFORMITY

according to EN 45014

The manufacturer Intertex Data AB, Rissneleden 45, 174 44 Sundbyberg, Sweden, herewith declares the firewalls/modems in the Intertex IX66 Internet Gate series are in compliance with the essential requirements and other relevant provisions of the following EC directives:

1999/5/EC **Radio & Telecommunications Terminal Equipment Directive (R&TTE)**

and that the following harmonised standards and/or technical specifications have been applied:

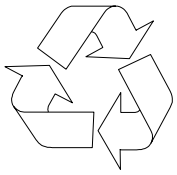
Electromagnetic Emission:	**EN 50081-1:1992, EN 50081-2:1993, EN 55022:1998**
Electromagnetic Immunity:	**EN 50082-1:1997, EN 61000-6-2:1999, EN 55024:1998**
Safety:	**EN 60950**

Stockholm August 27, 2001

Karl Erik Ståhl

Karl Erik Ståhl, President Intertex Data AB

CE



To preserve the environment, you should return the product to where you purchased it or directly to an accredited electronics recycling station.

Intertex uses accredited companies and organisations for recycling and disposion of electronics, packing materials and emballage.

IX66 Internet Gate is developed and manifactured by Intertex Data AB.

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Intertex Data AB
Rissneleden 45
SE-174 44 Sundbyberg
Sweden

www.intertex.se